

## Synthesis and Biological Activities of Curcumin Based Heterocycles

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### Abstract

A number of curcumin based pyrazoles, an isoxazoles, and a diazepine have been synthesized and evaluated for their antibacterial activities. The chemical structures of the newly synthesized compounds were verified on the basis of spectral data and elemental analyses. Investigation of antimicrobial activity of the compounds was done by disc diffusion method using Gram-positive (*S. aureus*) and Gram-negative (*E. coli* and *P. aeruginosa*) bacteria. All prepared compounds exhibited good antibacterial activities against Gram positive bacteria. Among all tested compounds, derivative **4** exhibited remarkable potency against Gram positive bacteria *S. aureus*.

**Keywords:** antimicrobial activity; pyrazoles; isoxazoles; diazepine; disc diffusion.

## Curcumin Based Heterocycles Prepared From Reacting Curcumin with Various Hydrazines

